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REMARKS

The Office action dated June 10, 2004 and the cited reference have been carefully considered.

Status of the Claims

Claims 1-45 are pending.

Claims 38-42, 44, and 45 are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicant wishes to thank the Examiner for indicating that claims 38-42, 44, and 45 are allowable. These claims have been rewritten in independent form including all of the limitations of the base claim and any intervening claims, and are now in condition for allowance. Early allowance of these claims is respectfully requested.

Claims 1-36 are rejected under 35 U.S.C. § 112, first paragraph, allegedly as failing to comply with the written requirement.

Claims 1-36 are rejected under 35 U.S.C. § 112, second paragraph, allegedly as being indefinite.

Claims 37 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Eustace et al. (Chem. Innovation, 31(4): 31 (2001); hereinafter "Eustace"). The Applicants respectfully traverse all of these rejections for the reasons set forth below.

Objection to Amendment to the Specification

The amendment to the specification filed on December 10, 2003 is objected to because the addition of the power of 2 for the last term in Equation VIII in paragraph 0041 is allegedly new matter. The Applicant respectfully traverses this rejection because this equation is a generalization of the equation calculating the distance shown in Table 4, as

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filed. Therefore, the amendments to Equation VIII of paragraph 0041 and claim 23 find support in the specification, as originally filed.

Specifically, Table 4, as filed, discloses that:

Distance = $SQRT((42.06-38)^2 + (32.92-38)^2 + (25.02-24)^2)$ = 6.586 ppm (the distance between the point representing the actually delivered concentrations and the point representing the design concentrations).

Table 4, as filed, also discloses that the delivered concentrations are $G_1' = 42.06$, $G_2' = 32.92$, and $G_3' = 25.02$; and the design concentrations are $G_1 = 38$, $G_2 = 38$, and $G_3 = 24$. Therefore, it is clear that this calculation of the value of "Distance" applies the equation:

Distance = $SQRT((G_1'-G_1)^2 + (G_2'-G_2)^2 + (G_3'-G_3)^2)$

It is clear that the process detailed in Table 4 is an application of the steps 1-8 that are disclosed in original paragraphs 0029-0036. Therefore, the disclosure in original Table 4 can be used to amend the disclosure in paragraph 0029-0036 and claim 23.

Therefore, the Applicant's amendments made to Equation VIII in paragraph 0041 and claim 23 did not introduce any new matter.

Claim Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 1-36 are rejected under 35 U.S.C. § 112, first paragraph, allegedly as failing to comply with the written requirement. Specifically, the Examiner alleges that the "randomly selected" conditions recited in claim 1 (and thus also all claims dependent therefrom) is new matter. The Applicant respectfully traverses this rejection because the recitation of "randomly selected conditions" in claim 1 and all claims dependent therefrom finds support in the originally filed specification, for example, in paragraphs 29-32 and Table 4.

For example, paragraph 29 discloses that the starting point (G1,G2,G3) (the design point) is _selected at random_. Thus, a predetermined set of conditions for this one particular experiment in the library of array is _randomly selected_. (Here, the set of conditions consists of randomly selected predetermined concentrations). Similarly, Table 4 discloses that "[a]

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point on a gradient is selected at random." This point represents an embodiment of the set of randomly selected conditions recited in claim 1 and all claims dependent therefrom. Therefore, the language "each of said conditions is randomly selected" has support in the originally filed specification.

Since claims 1-36 find support in the originally filed specification, these claims comply with 35 U.S.C. § 112, first paragraph.

Claim Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 1-36 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner stated that the amended claim 1 still "lack[s] high throughput methodology step(s)." Claim 1 is amended to recite the step of carrying out the combinatorial high throughput screening experiment program by conducting the experiments of the array under the predetermined set of conditions. Since the array of experiments comprises the elements of the library of the combinatorial experiment program, claim 1 now includes a high throughput methodology step. Therefore, claims 1-36 now overcome this rejection.

Claim Rejection Under 35 U.S.C. § 103(a)

Claims 37 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Eustace. The Applicant respectfully traverses this rejection because Eustace does not teach or suggest all of the limitations of each of claims 37 and 43.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." "All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 (8th ed., Rev. 1, Feb. 2003).

Eustace teaches an application of the Six Sigma tools to NIR analytical method to ensure that the measurements of the chemical compositions remain reliable and that the method remains consistent over time. (See; e.g., page 35 under "Implementing the methods" and "Improving the method") Eustace does not teach or suggest specifically how to apply the elements of the Six Sigma methodology to any of other myriad industrial

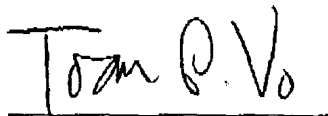-15-

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settings, let alone the many aspects of a combinatorial experiment program. Specifically, Eustace does not teach or suggest applying the Six Sigma methodology to improve the reactant delivery step or stock formulating step in a combinatorial high throughput screening experiment program, as recited in claims 37 and 43. Therefore, Eustace does not teach or suggest all of the limitations of each of claims 37 and 43. The teaching or suggestion to make the claimed invention with all of the claimed elements must be found in the prior art, and not based on the Applicant's disclosure. "The need for specificity [of the prior-art teaching or suggestion] pervades this authority." *In re Lee*, 61 U.S.PQ.2d 1430, 1433 (Fed. Cir. 2001).

Since Eustace does not teach or suggest all of the limitations of each of claims 37 and 43, Eustace does not render these claims obvious.

Respectfully submitted,

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